



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/518,193

08/22/2005

Caiguo Gong

2002B093/2

5600

23455 7590 09/21/2010
EXXONMOBIL CHEMICAL COMPANY
5200 BAYWAY DRIVE
P.O. BOX 2149
BAYTOWN, TX 77522-2149

EXAMINER

NERANGIS, VICKEY MARIE

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

09/21/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Attachment to Advisory Action

Applicant's response filed 9/15/2010 has been fully considered but is not persuasive.

Specifically, applicant argues (A) that there are no improper Markush groups in the claims; (B) that the addition of the amine exfoliated clay to Arjunan would results in premature curing or undesired blowing; (C) that there is no motivation or expectation of success had by adding an amine exfoliated clay to the composition taught by Arjunan..

With respect to argument (A), applicant is arguing that an alternative expression of "selected from the group consisting of A, B and C, and D" is proper, which it is not. Proper Markush language is either "wherein R is a material selected from the group consisting of A, B, C and D" or "wherein R is A, B, C or D." Applicant has a nested Markush group situation, wherein the first "and" must be substituted with "or" so that it reads as "selected from the group consisting of A, B or C, and D." Written as claimed suggests that B and C are both required. In claim 1, the nested Markush groups are "C₁ to C₂₀ alkyls, alkenyls and aryls" and "substituted C₁ to C₂₀ alkyls, alkenyls and aryls."

With respect to argument (B), the amines used to cure and blow are different from the ones that are used to exfoliate the clay. Also, given that the amines have reacted with the clay makes them unlikely to react with other components of the composition. It is noted that the amine exfoliated clay is added after the graft copolymers of Arjunan are formed and therefore would not affect the grafting process of Arjunan.

With respect to argument (C), there is sufficient motivation given that Arjunan is open to the addition of clay fillers and further given that Elpass discloses elastomer- and clay-based nanocomposites that have improved mechanical and permeability properties. Furthermore, there

Art Unit: 1796

is expectation of success given that clay nanocomposites are successfully formed with elastomers as shown by Elpass. Case law holds that “when a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *KSR Int’l Co v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741 (2007), citing *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976).

vn

/Vickey Nerangis/
Primary Examiner, Art Unit 1796